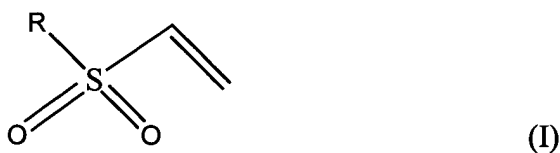


In the Abstract:

Please amend the abstract as follows:

ABSTRACT OF THE DISCLOSURE

A non-aqueous electrolyte comprising (I) a non-aqueous solvent, especially mainly composed of a cyclic carbonate and a cyclic ester, and optionally a linear carbonate, and (ii) an electrolyte salt, especially LiBF_4 , dissolved therein and (iii) a vinyl sulfone derivative having the formula (I):



wherein R indicates is a C_1 to C_{12} alkyl group, a C_2 to C_{12} alkenyl group, or a C_3 to C_6 cycloalkyl group, and also a lithium secondary battery using the same are disclosed.